

**Work Order ID 60906**

Monday, July 26, 2010 2:13:42 PM

Page 1

Item ID: D2939-2

Accept

Revision ID:

Item Name: Saddle RH In, 206

Start Date: 7/26/2010 Start Qty: 4.00

Required Date: 8/2/2010 Req'd Qty: 4.00

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run

Start

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

Draw Nbr

Revision Nbr

D2939

Rev C

100



HAAS 1

HAAS CNC vertical machine #1

HAAS CNC VERTICAL MACHINING #1

0.00

Memo

0.00

Program part number and batch number. ☐ 1-Inspect part number and batch number are programmed correctly. ☐ 2-Machine Step No 1 of Folio and visually inspect as per dwg D2939 & attached Dimension Sheet ☐ 3-Machine Step No 2 of Folio and visually inspect as per

10.8.4

2

PTC

110



Mill Conv

Conventional Milling Machine

CONVENTIONAL MILLING MACHINE

0.00

Memo

0.00

Machine Keyway and inspect per attached dimension sheet

10.8.4

2

120



QC

Quality Control

QC1- Inspect dimensions to dimension sheet

0.00

Memo

0.00

10.8.4

2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D2939-2 PAR #: (1) & (2) Fault Category: Machining NCR: Yes No DQA: 1 Date: 10/05/11  
 Resolution: Scrap Disposition: Scrap QA: N/C Closed: 10/08/11 Date: 10/08/11

NCR: <u>60906</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
(1) 10.8.11	4 100	Uneven thickness along the .312" bolt pattern. Part not sitting correctly on fixture. Operator error.	alB 25/04/12 10/08/03	Scrap + don't replace. No mat'l. - Spindle is 0.230" thick on one side & 0.275" on the other. - A burr on the 1 side caused it to be s.t. crooked.	alB 10.8.11	10/05/11	alB 25/04/12 10/08/03	10/08/11
(2) 10.8.11	4 100	Insufficient roughing of material causing cutter failure into the workpiece. programming error & tool taking off more material than it can handle. R/C: process/program feed.	alB 25/04/12 10/08/03	Scrap + don't replace. No mat'l. Alert programmer.	alB 10.8.11	10/08/11	alB 25/04/12 10/08/03	10/08/11

NOTE: Date & initial all entries

# Work Order ID 60906

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Page 2

Item ID: D2939-2

Accept



Setup Start

Revision ID:

Item Name: Saddle RH In, 206

Stop

Start Date: 7/26/2010 Start Qty: 4.00



Cust Item ID:

Required Date: 8/2/2010 Req'd Qty: 4.00

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

130

QC8- Inspect parts - second check

0.00



QC

Memo

0.00

Quality Control

*DIH 10/08/09*

*2*

140

Chemical Conversion Coat per QSI005 4.1

0.00



HandFinish

Memo

0.00

Hand Finishing

*ml 10 08 09 (2)*

150

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00



Powdercoat

Memo

0.00

Powder Coating

START TIME:

*1:00pm*

OVEN TEMPERATURE:

*1:30pm* FINISH TIME:

*320°F*

*7 ml 10/08/10*

*2 / 0*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**Work Order ID 60906**

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Page 3

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Revision ID:

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Start Date: 7/26/2010 Start Qty: 4.00

Required Date: 8/2/2010 Req'd Qty: 4.00

Reference:

Cust Item ID:

Customer:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run

Start

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

160

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

ml 10 08 10 (2)

170

Identify as per dwg &amp; Stock Location 2/28A

0.00



Packaging

Memo

0.00

Packaging

10/8/10 2/28A (2)

180

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

10/8/11 JF

MF  
10-8-11

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

Monday, July 26, 2010 2:13:47 PM

Page 1

Work Order ID: 60906

Parent Item: D2939-2

Parent Item Name: Saddle RH In, 206



Start Date: 7/26/2010

Required Date: 8/2/2010

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP: B ☐ 00.06.26 ☐ New DWG rev (mpp 2069) ☐ EC  
IPP Rev: C As per Rev C 07-03-19 JLM ☐ ☐

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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D6101-001

Manufactured No

100

Each

57.0000

1

4



Saddle Billet



## Location

## Loc Qty

## Loc Code

MAT

40

46409

40

MAT40

17

17

10.8.4

46409

4

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



<b>DART AEROSPACE LTD</b>		<b>Work Order:</b>	110906
<b>Description:</b> 206 Saddle, Outboard, Right side		<b>Part Number:</b>	D2938-2
<b>Inspection Dwg:</b> D2938 Rev. C		Page 1 of 1	

Inspect dimensions highlighted on inspection sheet drawing D2938 Rev. C and record below:

Dim	Min	Max	Go/No Go Gauge	Recorded Actual Dimensions				By	Date
				1	2	3	4		
A	0.100	0.140		.134	.134				
B	0.100	0.140		.132	.132				
C	0.100	0.140		.131	.131				
D	0.210	0.230		.225	.225				
E	1.245	1.255		1.250	1.250				
F	1.245	1.255		1.250	1.250				
G	2.495	2.505		2.500	2.500				
H	0.510	0.515		.510	.510				
I	1.572	1.582		1.577	1.577				
J	2.495	2.505		2.500	2.500				
K	0.257	0.262		.258	.258				
L	0.312	0.317		.314	.314				
M	0.235	0.240		.238	.238				
N	0.100	0.140		.111	.111				
O	0.540	0.560		.551	.551				
P	0.490	0.510		.498	.498				
Q	3.715	3.725		3.720	3.720				
R	2.720	2.760		2.747	2.747				
S	0.240	0.270		.256	.256				
T	0.100	0.180		.130	.130				
U	1.625	1.635		1.630	1.630				
V	1.362	1.372		1.367	1.367				
W	0.316	0.321		.316	.316				
X	1.250	1.270		1.260	1.260				
Y	1.565	1.585		1.575	1.575				
Z	0.178	0.198		.188	.188				
AA									
AB									
AC									
AD									
AE									
AF									
AG									
AH									
Accept/Reject									

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DIAL IND.

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Measured by:	af
Date:	10-8-11

Audited by:	DA
Date:	10/08/09

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.12.12	Reformat; Added Dim. X-Y, DT8683, DT8686, DT8690	KJ/RF	
C	07.03.21	Revised per drawing revision C	KJ/JLM	

W/O:			WORK ORDER CHANGES					
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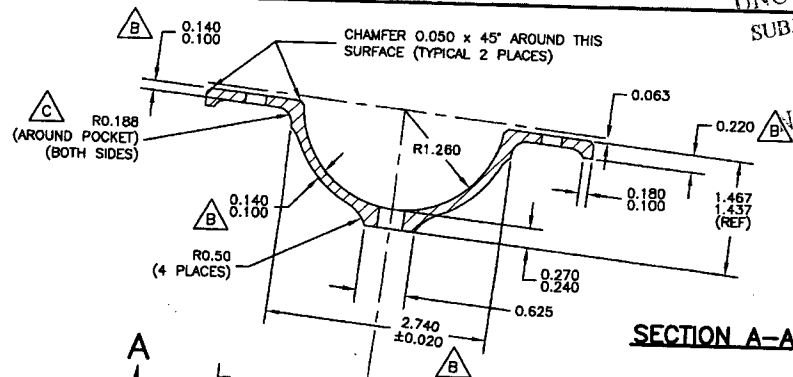
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

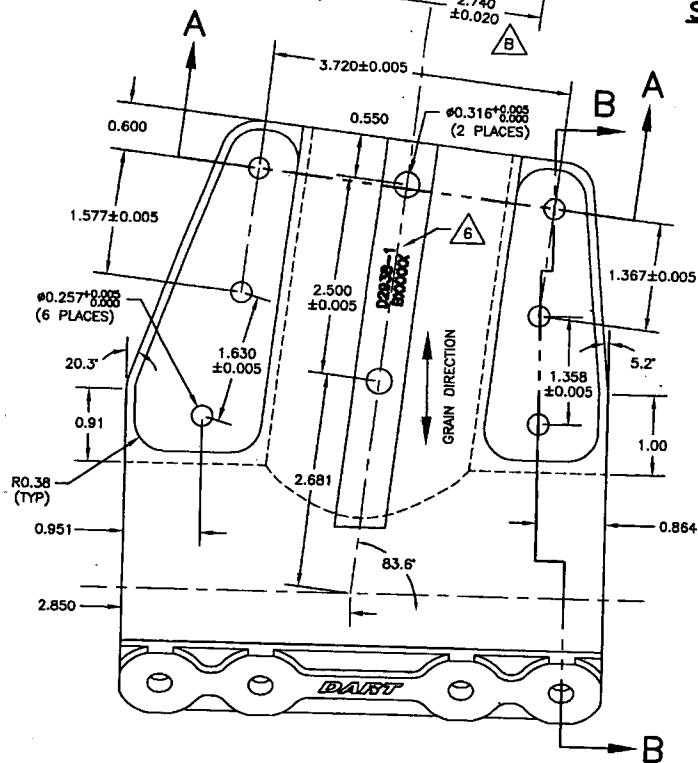
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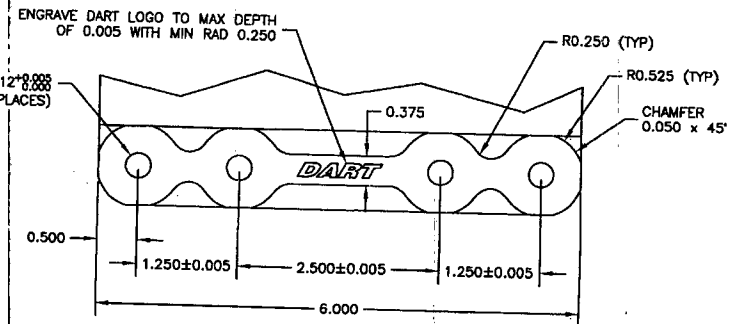
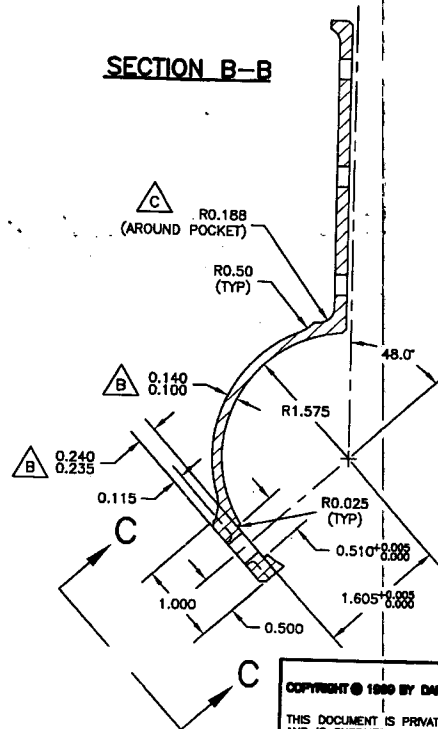
SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
60906



SECTION A-A



SECTION B-B



VIEW C-C

D2938-1 LH SADDLE (SHOWN)  
D2938-2 RH SADDLE (OPPOSITE)

NOTES:

- 1) MATERIAL: ALUMINUM 7075-T7351 (QQ-A-250/12)  
(MAKE FROM D6101-003 SADDLE BILLET, 7075)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT GLOSS WHITE (REF 4.3.5.1) PER DART QSI 005 4.3
- 3) BREAK ALL SHARP EDGES 0.010 TO 0.020
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES
- 6) ENGRAVE PART AND BATCH NUMBER IN THIS AREA 0.010 TO 0.015 DEEP

C	06.11.09	R0.188 WAS R0.30 TO R0.25
B	00.05.29	CHANGED GEOMETRY AND MATERIAL
A	99.11.12	NEW ISSUE
DESIGN	DRAWN BY	DART DART AEROSPACE USA, INC.
CHECKED	APPROVED	D2938
DATE	TITLE	SADDLE OUTSIDE
06.11.09		

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DART AEROSPACE USA, INC.

DART DART AEROSPACE USA, INC.  
BELLINGHAM, WA

DRAWING NO. D2938

TITLE SADDLE OUTSIDE

SCALE 2:3

07.02.12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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